Manitoba

ANNUAL REPORT

1984

The
Clean Environment
Commission

85-5681/

Manitoba

Minister of
Environment and
Workplace Safety and Health

Room 156
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8
(204) 945-3522

Her Honour,
The Honourable Pearl McGonigal,
Lieutenant-Governor of Manitoba,
Room 235 Legislative Building,
WINNIPEG, Manitoba.
R3C 0V8

Your Honour:

The undersigned has the honour to present the Annual Report of The Clean Environment Commission detailing its activities for the year ending December 31st, 1984.

Yours sincerely,

Gerard Lecuyer,
Minister of Environment and
Workplace Safety and Health

Manitoba

Clean Environment Commission

Chairman

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The Honourable Gerard Lecuyer,
Minister of Environment and Workplace
Safety and Health,
Room 156 Legislative Building,
WINNIPEG, Manitoba.
R3C 0V8

Dear Mr. Lecuyer:

Pursuant to the provisions of Section 11 of The Clean Environment Act, The Clean Environment Commission herewith transmits to you as Minister responsible, its Annual Report.

Section 11(1) of The Clean Environment Act provides that the annual report of the Commission shall include:

(a) the investigations and hearings conducted by the Commission;

(b) the orders made;

(c) regulations made under this Act;

(d) a review of the state of the environment;

(e) such other matters as the minister may require.

In the discharge of its responsibilities under that subsection of the Act, The Clean Environment Commission is pleased to submit the particulars set forth in the following pages of its Annual Report for the year ending December 31st, 1984.

Submitted on behalf of the Commission.

Stan Eagleton,
Chairman.

PREFACE

The identity of the variety of environmental committees, councils, government departments and agencies that now exist in Canada may be confusing to the general public. Sometimes the jurisdiction and functions of these groups may appear to overlap and become blurred. It is important that Manitobans understand the services provided by The Clean Environment Commission which have many advantages including the democratic basis on which these services were founded.

The Clean Environment Commission is a quasi-judicial body which issues orders defining limits, terms and conditions for operations that may discharge contaminants into the environment. The Commission differs from other environmental organizations and departments in that, while it reports to the Environment Minister, the Commission is completely independent of the Environment Department; the varied careers of the lay persons who make up the Commission are not generally connected with government service. While the Commission gives due consideration to the representations of industries, utilities, municipal governments, provincial government departments, and to the advice of environmental experts, the members are attuned to the concerns of citizens whose lives may be affected by environmental issues. The Commission also is careful to avoid any conflict of interest on the part of its members in connection with any matter under consideration.

To make sure that the process of pollution control in Manitoba is carried out in full view of the public, The Clean Environment Act requires the Commission to advertise all applications received. This provides public advance warning of new undertakings likely to pollute the environment. A feature unique to Manitoba is the requirement that the Commission hold a hearing when a request is made by any member of the public likely to be affected by such pollution. To make participation meaningful, the Commission distributes technical reports and other relevant information received in advance, from all sources, to persons expressing an interest in a hearing. The Commission also ensures that there is full public clarification of details of operations being reviewed.

Manitobans have the opportunity, through the hearing process, to participate in environmental control and to question operators of polluting industries, as well as government experts, and thus directly influence the decision-making process. In many other jurisdictions, any hearings that may be held take place only with departmental sanction and the hearing body has little power beyond the offering of advice. Citizens of Manitoba have a clear right to be heard by the Commission which, in its orders, directly regulates the limits, terms and conditions of operations that, under law, control polluting enterprises in the Province.

In providing a forum for public participation together with information to ensure that such participation is meaningful, the Commission also provides a chance for all parties affected by an environmental matter to meet and an opportunity to bring difficulties and conflicts into the open. Frequently, latent concerns are addressed or mediated and intercommunication between neighbouring interest groups is encouraged thus avoiding or defusing adversary situations where frustrations might otherwise build up over time. In order to facilitate participation, hearings are invariably held in the community which is involved in the matter under consideration.

Finally, the Commission considers that those who have a right to be informed of operations that may pollute the environment and to be heard regarding their concerns also have a right to be informed of the outcome of the Commission's deliberations. For this reason, copies of the Commission's rulings and orders are forwarded to the persons who attended the hearing.

The Commission does not stand alone in the regulatory process and its orders are subject to appeal within 30 days of issue. The fact that a hearing has been held and evidence and representations have been recorded provides a background of record if an appeal is made.

The Commission provides a sound basis for public participation in matters of environmental control. In order to function successfully, the system requires continuing public interest and active public participation. Positive and beneficial results occur when this ingredient is present and The Clean Environment Commission looks forward to broadly based and informed public participation in its activities in the future.

TABLE OF CONTENTS

Preface 5

The Clean Environment Commission 9

Commission Background and Responsibilities 11

Programs and Activities 12

Meetings and Hearings 12
Protection of the Environment 12
Air Pollution Control 12
Insecticide Use 13
Water Pollution Control 18
Investigations Conducted 15
20

Orders Issued 23

Clean Environment Act Amendments 24

State of the Environment 27

Scope 27
Air 28
Water 29
Land 31
Land Use Conflicts 33

Regulations Under The Clean Environment Act 35

Appendix "A" — Public Hearings Held 41

Apppendix"B" — List of Orders Issued 41

1. Orders Resulting from Applications 41
2. Orders Varied 45

THE CLEAN ENVIRONMENT COMMISSION

The Clean Environment Commission is a quasi-judicial body appointed by order-in-council under the terms of The Clean Environment Act (Chapter C130 of the Consolidated Statutes of Manitoba), which stipulates that the Commission shall consist of not less than three members, so appointed.

At present, the Commission membership consists of five Manitoba citizen appointees under a full-time chairman, working with the support of a secretariat staff of four. The Commission reports to the Minister responsible for the administration of The Clean Environment Act. The Honourable Gerard Lecuyer serves in this capacity as Minister of Environment and Workplace Safety and Health.

The Commission membership during 1984 was as follows:

Mr. Stan Eagleton, Civil Servant, Winnipeg, Chairperson

Mrs. Judy Lord, Free Lance Writer, Winnipeg, Vice-Chairperson, resigned effective July 1, 1984

Mr. Robert Boucher, Environmental Consultant, Lorette, Commissioner, resigned effective October 23, 1984

Dr. W. George Bowen, Organic Chemist, Winnipeg, Commissioner, appointed May 1, 1984

Prof. Raymond Chant, Professor, University of Manitoba, Commissioner

Mr. Peter Ducheck, Farmer, Lockport, Commissioner

Mrs. Jeanette Goertzen, Community Worker, Brandon, Commissioner, resigned effective September 30, 1984

Mrs. Mamie Hendren, Hospital Worker, Thompson, Commissioner

Dr. Barrie Webster, Professor, University of Manitoba, Commissioner

BACKGROUND AND RESPONSIBILITIES

The principal legislation for controlling pollution and protecting the environment in Manitoba is The Clean Environment Act, adopted by the provincial legislature in 1968. This Act replaced The Prevention of Water Pollution Control Act under which the Provincial Sanitary Control Commission had operated for thirty years, issuing 150 licences for the purpose of limiting water pollution. The Prevention of Water Pollution Control Act took over from the Public Health Act which, as in most other jurisdictions, had previously provided the principal protection against contamination of the province's water. The Health Act and regulations thereunder also responded to other matters of environmental concern.

The adoption of The Clean Environment Act in 1968 and its major revision in 1972 saw a broadening of the concept of environmental protection in that this Act provided for control of the emission of contaminants to the soil and air as well as to bodies of water. This approach to environmental protection legislation in this province avoided a multipilicity of legislation for this purpose and tended to unify the administrative arrangements, avoiding duplication of organizational structures and providing the capability for a unified response to a variety of environmental concerns.

The principal control mechanism of The Clean Environment Act was that there should be no contamination of the air, soil or water of Manitoba in excess of prescribed limits. The Act specified that limits could be prescribed either in regulations issued by the Lieutenant Governor in Council or in orders issued by The Clean Environment Commission. The Act provided that the Commission would have jurisdiction not only to issue orders prescribing limits, terms and conditions, but also that it might issue stop orders to any person who was contaminating the environment and clean up orders requiring a person to clean, at his own cost, the area affected by such contamination. The Commission was also given jurisdiction to investigate matters affecting the environment for the purpose of carrying out its duties and functions under the Act, to hold hearings to determine whether operations are in compliance with the orders and regulations issued, to suspend all or portions of the provisions of its orders or to vary such provisions where appropriate. The Act also provided a mechanism, involving the Commission, for the abatement of an undesirable environmental condition by removal or relocation. The Act made it clear that the Minister had overall responsibility for the supervision and control of the environment and provided jurisdiction to the environment department to carry out a wide range of responsibilities involving the administration, surveillance, monitoring and enforcement of the limits, terms and conditions prescribed under the Act. The role assigned to the Commission, which included the encouragement of public participation in its decisions, was pivotal to the success of environmental control activities in Manitoba.

During the sixteen years since passage of The Clean Environment Act, the Commission, in carrying out its licencing function, has issued in excess of a thousand orders to control a variety of industrial, mining, utiiity, and pesticide operations undertaken in both the public and private sectors by individuals and corporate enterprises as well as by departments of the municipal and provincial governments.

A principal feature that distinguishes The Clean Environment Act from other environmental control legislation across Canada is a requirement that The Clean Environment Commission, which is the licencing agency for applications under the Act, holds a public hearing whenever an objection or representation is received from any person who is likely to be affected by an operation under review. The mandatory holding of such hearings at the request of those likely to be affected provides an opportunity for individual citizens, residents or neighbourhood action groups — as well as the operators and environmental authorities — to make a direct contribution to the information and evidence considered by the Commission prior to the issuance of a licence or order prescribing limits, terms and conditions on the emission of contaminants. Individual citizens or action groups have had a significant impact on the restrictions imposed by the Commission in connection with the approval of these operations.

Provisions are also made in the Act for the Commission to hold hearings when enquiring into compliance with orders or regulations, when investigating environmental matters, when considering revision of orders and when considering the advisability of proposed abatement projects.

PROGRAMS AND ACTIVITIES

MEETINGS AND HEARINGS

During calendar year 1984, the Commission held twenty-nine business meetings to deal with all aspects of its jurisdiction and responsibilities under The Clean Environment Act.

The Commission also held thirty-four public hearings in seventeen different locations throughout the province in response to requests for public participation in its investigations and decisions by individuals or groups likely to be affected by the operations under review. These hearings took place in Dauphin, Deloraine, Dunnottar, Gladstone, Glenboro, Hartney, Warren, Woodlands, and Winnipeg.

A further eight hearings were held in connection with the Commission's review of the Province's proposed hazardous waste management program. These hearings took place in Brandon, Morden, Portage la Prairie, and Thompson, as well as in Winnipeg.

Another ten hearings were held for the purpose of receiving evidence and representations concerning the variation of orders previously issued by the Commission. These hearings were held in Brandon, Hamiota, Snow Lake, Winnipeg, Winnipeg Beach, and Winnipegosis. A hearing was held in Winnipeg for the purpose of determining compliance with an order previously issued by the Commission.

PROTECTION OF THE ENVIRONMENT

General

The Clean Environment Act requires that any person operating or proposing to operate a plant or process that will result in the emission of contaminants to the environment must first submit an application or "proposal". To ensure that the environment is adequately protected, the word "contaminant" is given a very broad definition under the Act to include any substance which is foreign to or in excess of the natural constituents of the environment that is likely to affect the natural environment, be injurious to health, damaging to property or plant or animal life, or interfere with visibility or the normal conduct of business or the comfort or well-being of any person. The emissions embraced by the term "contaminant" include any solid, liquid, gas or waste and also include such less tangible qualities as odour, heat, sound, vibration and radiation. Stated in such terms, the intention of the Act is to encompass all forms of pollution or contamination and to provide protection to the citizenry and to the natural environment against the discharge or emission of any such contaminants.

Procedures

A short discussion of the procedure for dealing with applications under the Act may be of interest.

The Act provides that applications or proposals must be filed with the Department of Environment by any new or existing industry likely to cause contamination. Frequently these applications are obtained by the Department following receipt of complaints from individual residents. Following their receipt by the Department, these proposals are referred to The Clean Environment Commission.

Officials of the Environmental Management Division prepare a technical and environmental impact report including recommendations for limits, terms and conditions on emissions to the environment. The Commission, upon receipt of the report, forwards copies for comments to the applicant and the municipality in which the operation is located and to any interested individual on request.

At the same time, the Commission, as provided in the Act, advertises details of the operation in the local newspapers together with a notification that any person who is likely to be affected by the operation may, by submitting a letter to the Commission, file notice of representation. On receipt of such a notice, the Commission makes arrangements to hold a public hearing within the area where the operation is located, advertises the hearing and forwards advance notice to the applicant and the municipality as well as to any persons who have expressed an interest.

Following the public hearing (or without the necessity of holding a public hearing if no citizen interest is expressed), the Commission then proceeds to issue its control order stating the limits, terms and conditions required to be observed by the operator.

These limits, terms and conditions are subject to monitoring by representatives of the Environmental Management Division who may bring charges under the Act against the operator in cases where violations of the order are occurring. Anyone found guilty of violating the regulations or orders issued under the Act, may be subject upon summary conviction, if an individual, to a fine not exceeding five thousand dollars, and in the case of a corporation to a fine not exceeding fifty thousand dollars. Each day the violation continues may be considered a separate offence and subject to an additional fine in the same amount.

Orders issued by the Commission may be appealed to the minister responsible within 30 days of the issue date. Following appeal, the minister may, with the approval of the Lieutenant Governor in Council, cancel or vary the order, refer the matter back to the Commission to hold a new hearing and issue a new order, or may dismiss the appeal.

Following the expiry of the appeal period, a request may be filed with the Commission to vary the terms of the order and the Commission may, provided that the order was not previously appealed to the Minister, vary the order as it considers appropriate. Such a variation must first be advertised and, should any person likely to be affected file an objection to the variation, the Commission must hold a public hearing to receive evidence and representations from all concerned before proceeding to consider variation of the terms of the order.

AIR POLLUTION CONTROL

During 1984, the Commission issued twenty-six orders for the purpose of controlling emissions to the air. The following is a brief discussion of some of the orders issued for this purpose.

Manitoba Sugar Company Beet Sugar Manufacturing Plant Winnipeg

One of the more interesting matters dealt with by the Commission during 1984 concerned the control of emissions to the atmosphere from the Manitoba Sugar Company, a sugar beet processing plant located in the Fort Garry area of south Winnipeg. The plant, which had been constructed in what was then a relatively undeveloped, rural part of the City, gradually experienced the encroachment of commercial and residential development in areas near the plant.

The plant had been operating since 1971 under a succession of licences and orders issued by The Clean Environment Commission until August 1983 when, after receiving a considerable number of complaints from residents in the vicinity of the plant, the environment department requested the Commission to hold a hearing to ascertain whether the plant was in compliance with the Commission's order and whether the order itself was adequate to provide the controls necessary to contain excessive odours.

The Commission's hearing took place in August 1983, and was reconvened in January 1984 in order to provide time for the Company to prepare its responses to new recommendations of the Environmental Management Division made during the initial hearing. The Company reported the implementation of new methods of dealing with and disposing of the mud deposits removed from the beets during processing which had formerly caused odour problems at the plant site. These odours, which occurred primarily during hot summer weather, resulted from the decomposition of beet particles in the drying mud.

Following the adjournment of the hearing in January, the Commission issued a varied order in April 1984 which required the Company to engage the services of a professional consultant to report on the feasibility of installing equipment or adopting procedures to eliminate or reduce odours from the pulp drying stack. The pulp drying odours are entirely different from the summer mud drying odours, and occurred only when actual beet processing operations were underway at the plant, usually from October to January.

As provided for in the order, the Commission held a new hearing in October 1984 to review the consultant's report and to confirm the Company's success in complying with the terms of the order with regard to the mud drying odours. The report of the consultant established to the Commission's satisfaction that no equipment or methods had been found which were practicable for the control of odours from the sugar beet plant pulp drying operation and that no such equipment had been installed in any similar plants in North America. It had always been the Company's contention that the pulp drying odours were not unacceptable to the neighbourhood. A large majority of complaints registered at the August 1983 hearing were related to mud drying. At the October 1984 hearing, it was apparent that a new method employed by the Company to dry process mud during the preceding spring and summer had been successful in substantially reducing last summer's odours.

Following the October hearing, the Commission issued a new order prescribing limits, terms and conditions on the continued functioning of the plant.

Simplot Chemical Company Ltd. Fertilizer Manufacturing Plant Brandon

Another industry which had given rise to problems of air pollution was the Simplot Chemical Company Ltd. fertilizer manufacturing plant located in East Brandon. At its hearings in 1982, the Commission heard complaints about ammonia odours from residents located in the eastern part of the City. At that time, an order was issued prescribing a limit of two parts per million ammonia when measured in the air of a residential district.

Following the Company's appeal from this order, the Commission held follow up hearings in April and November 1983. In February 1984, the Commission filed its report, together with recommendations, with The Honourable Gerard Lecuyer, the Minister responsible. The excessive ammonia emissions which had occurred during 1982 and, to a lesser extent, during 1983, had resulted from an extensive plant expansion complicated by the necessity of fine tuning and adjusting newly installed equipment. The Commission's report noted that the number of complaints arising from fugitive ammonia emissions from the Simplot plant had greatly decreased during 1983. The Commission also took note of the Company's contention that the emissions limit of two parts per million of ammonia in the ambient air of the Green Acres subdivision was unnecessarily restrictive and that enforcement of this limit would impose an unrealistic requirement on the Company.

The Commission recommended that the ambient limit be increased from two to three parts per million in adjacent residential areas as well as areas designated as educational institutions. The Commission also recommended that the Company operate a continuous monitoring station at or near the residential subdivision in order to provide an additional monitoring station for enforcement purposes as well as to provide data to assist in the future review of the order. The Environmental Management Division also operates a monitoring station in a nearby school parking lot. The Company contended throughout the hearing that the ammonia limit would be difficult to meet during adverse meteorological conditions.

After considering the matter and circulating the Commission's report for the comments of those most directly concerned, the Minister directed the Commission, in July 1984, to issue a new order incorporating the principal recommendations contained in the Commission's report and providing that the terms of the order should be reviewed by the Commission at a public hearing in the summer of 1985.

Canada Packers Inc.
Meat Packing Plant
Winnipeg

The Commission was requested to consider a variation of the order on Canada Packers Inc. which was one of six issued in 1972 to various packing house processors to regulate odours. At the public hearing held in St. Boniface, the Company described the situation whereby, in order to maintain top performance of the odour control system serving its inedible rendering operation, it was necessary to close the system down briefly in the spring and fall so that elements of the system could be cleaned and maintained. After considering the Company's testimony, the Commission decided that the five day period requested by the Company to service and maintain the equipment could be reduced to three days by means of a higher degree of preparedness and by working around the clock.

Following the hearing at which no public representations were made against the Company's application, the Commission varied the order to provide that the odour control system might be closed down for a maximum period of three days, twice a year, without the necessity of closing down the entire packing house operation during those periods. The maintenance periods selected, April and October, are during the season when the public would be expected to be less strongly affected by any odour problems than during summer months. In reaching its decision, the Commission took into account considerations bearing on the viability of the operation as well as the necessity of ensuring the top efficiency of the odour control equipment.

Manitoba Muzzle Loaders Association
Gun Club and Shooting Range
Woodlands

A proposal was filed by the Manitoba Muzzle Loaders Association for the operation of a shooting range in a rural location, in the Interlake Region, leased to the Association by the Rural Municipality of Woodlands. As a result of its advertisement of this operation, the Commission received a considerable number of representations from area residents and an evening hearing was held in the Village of Woodlands. Members of the association and local residents were present in considerable numbers.

At the hearing, evidence was received that the municipal council had not only approved this recreational operation but had also leased the land to the club and that the facility had been operating for some time. Certain residents living within one to two kilometres of the range wanted restrictions placed on the noise level being caused by the shooting, even to the extent of closing down the operation. On the other hand, representatives of the Muzzle Loaders Association stressed that the recreational use of the range was of importance to their Association, that measures had been taken to reduce the noise level and that the nearest residents lived one kilometre or more away from the shooting range. Following the hearing, the Commission issued its order prescribing noise limitations on the shooting range operation. An appeal against the provisions of the order was under consideration at year end.

Manitoba Hydro
Thermal Generating Plants
Brandon and Selkirk

Air pollution control orders were issued during 1984 to Manitoba Hydro prescribing limits terms and conditions on its thermal generating plants located at Selkirk and Brandon. In practice, the plants were employed only during peak load periods and during emergencies. In recent times, the Selkirk plant had not been used for power generation.

The Brandon plant was being used for generation purposes – but not frequently. The contaminant of concern was particulate matter which was only partially controlled by existing cyclone filter equipment. The removal of particulates to more acceptable normal levels would require additional very costly dust control equipment.

The order that resulted required Manitoba Hydro, in the event that the station is to be used with greater frequency, to install further dust control equipment to reduce the particulates. Manitoba Hydro was also required to install stack sampling facilities on the main chimney at the Brandon station.

Shell Canada Limited
Petroleum Product Storage Terminal
Winnipeg

Orders were issued to Shell Canada Limited for its product storage terminal, which superseded the refinery in St. Boniface, and to Maple Leaf Mills for its large seed cleaning and feed mill operation also located in St. Boniface. Other orders were issued to Omega Hydrocarbons Ltd. for its liquid petroleum gas plant outside Waskada, to Reliance Products for its plastic containers plant in Winnipeg, to Orloff Enterprises for its scrap metal recycling plant at North Point Douglas in Winnipeg and, following appeals from earlier orders, to the Abitibi-Price Inc. paper mill at Pine Falls and the Mandak Metals Ltd. box car recycling operation in the Rural Municipality of St. Andrews near Selkirk.

WATER POLLUTION CONTROL

Over half of the orders issued by the Commission during 1984 were concerned with water pollution control.

Hudson Bay Mining and Smelting Co., Limited
Main Smelter Complex
Flin Flon

Some of the most important of these orders were issued for Hudson Bay Mining and Smelting Co., Limited operations at Flin Flon and Snow Lake. The first of these was an order dealing with the Company's copper-zinc mining and smelter complex at Flin Flon. This complex has been in operation since 1930, and was licenced by the Provincial Sanitary Control Commission in 1942 and by The Clean Environment Commission in 1970. However, the fact that the operation straddles the Manitoba-Saskatchewan border and that the actual tailings discharge takes place in the Province of Saskatchewan only to return to Manitoba within a short distance somewhat complicated the legal aspects of prescribing limits, terms and conditions.

In 1977, the federal government issued its Metal Mining Liquid Effluent Regulations and Guidelines setting standards which were enforceable for new mines; however, the limits so prescribed were not legally enforceable in the case of mines then in existence. Following consultations between the Governments of Manitoba and Saskatchewan to establish a method of ensuring that the limits, terms and conditions as prescribed by the Commission would be enforceable in both Provinces, the Commission proceeded to hold a public hearing in Flin Flon during December 1983 and, following adjournments, the hearing was resumed in January and February 1984.

The contaminants of concern, a number of heavy metals as well as nonfilterable residues, are removed in a tailings pond. The maintenance of approximately basic pH conditions in the pond is necessary to ensure that the heavy metals are insoluble and are settled in the pond. Favourable pH conditions are achieved by the addition of quicklime. Aside from periods during spring thaw and heavy precipitation events, the federal guideline recommended limits were met consistently by the tailings pond operation. A staged program is underway by the Company whereby the lime addition system is to be improved and the capacity and operational effectiveness of the tailings pond are to be improved by means of raising the pond dykes and modifying the regulating structure.

The Commission's order required the Company to report to the Environmental Management Division by November 1985 on the progress of this program primarily aimed at the reduction of zinc in the effluent.

Hudson Bay Mining and Smelting Co., Limited Spruce Point Mine Reed Lake

The Commission issued a further order to Hudson Bay Mining and Smelting Co., Limited early in 1984. This order was issued in connection with the operation of the Spruce Point Mine located on the south shore of Reed Lake in the Grass River Provincial Park. A previous order had been issued in 1980 to cover the development phase of this mine. The earlier order contained a provision that the liquid effluent from the developing mine would be pumped through a pipeline to a location south of PR 391 lying outside the Reed Lake drainage basin.

With the onset of production at the mine, the Commission held a hearing at Flin Flon in November of 1983 at which representations were received from Reed Lake lodge owners and fishing interests who objected to the drainage of treated mine water into the waters of Reed Lake which is part of one of the finest recreational fishing waters in the Province of Manitoba. The Company contended that further surveys of the area south of PR 391 indicated the impracticality of draining the effluent entirely out of the Reed Lake drainage basin. The Company stated that a waste water treatment plant would be installed. The mine water would be discharged from the treatment plant into a swampy area south of PR 391 and the Company maintained that, by the time it drained back into Reed Lake, the water would be of a sufficiently high quality so as not to cause any deterioration of the lake.

The order issued by the Commission following the hearing continued a range of effluent quality standards commensurate with those contained in the federal guidelines and required that, by February 1, 1986, the effluent would have to be discharged in such a manner as not to flow into any water body north of PR 391. The order was appealed by the Company in a letter to the Minister and the appeal remained under consideration at the end of 1984.

Hudson Bay Mining and Smelting Co., Limited Chisel/Ghost Mine Reed Lake Area

A third order issued during 1984 to the Hudson Bay Mining and Smelting Co., Limited for the Chisel Lake/ Ghost Lake mine complex in the Reed Lake area followed a request by the Company for a variation of an order issued in 1980. The 1980 order had, amongst requirements pertaining to effluent quality, stipulated that quality levels on the discharge of heavy metals including copper, lead and zinc in the mine water effluent would have to be improved to the level of the federal guidelines by May 1, 1984.

During the hearing in Snow Lake, the Company representatives stated that, in addition to the time required for researching and developing methods of effluent quality control and for the purchase and installation of waste water treatment plant equipment, a shutdown imposed on the Company by economic circumstances during the previous year had delayed completion of the waste water treatment plant until the end of 1984.

While the Commission was concerned at the continued discharge of mine water effluent of inferior quality through a number of waterways including Woosey Lake and Woosey Creek into Reed Lake, advice was received that it would probably not be possible to hasten the development of the waste water treatment plant. There was no report received of water quality damage to Woosey Lake. The order, issued following the hearing, extended the compliance date to permit the final effluent quality limits to come into force at the beginning of 1985.

Resort Area Sewage Facilities

An important group of orders was issued by the Commission during 1984 for municipal water pollution control facilities. Two contentious operations dealt with during the year were at the Lake Winnipeg summer recreational communities of Winnipeg Beach and Dunnottar. In both of these communities, the municipal councils were seeking to overcome problems arising from disposal of sewage picked up from individual facilities at private residences. In both of these cases, the actions planned by the respective municipal councils to overcome the problems were strongly objected to by citizens who opposed the facilities and locations chosen by municipal representatives.

Town of Winnipeg Beach Sewage Lagoon Operation

The Commission had initially held well attended hearings in Winnipeg Beach during 1983 to investigate residents' complaints about the town's practice of dumping sewage from trucks used by the Town to pump out and deliver waste water from residential sewage holding tanks to the municipal lagoon. During the hearings, the Town Council announced its plans to largely replace the sewage truck pump out system by installing sewage pipe service to the majority of dwellings in the Town not yet serviced by such a system. The order issued by the Commission required Council to discontinue the sewage pump out truck traffic on Kernsted Road

and to improve the equipment and facilities used by such trucks for discharging sewage.

Following the issuance of the order, the Town filed a request for variation which was denied by the Commission. In May of 1984, the Town filed a new request for variation to be given relief from those clauses of the order related to the dumping of sewage by trucks. Another well attended hearing was held in June, 1984, when the Commission again heard the objections of those persons residing closest to the sewage lagoon and the explanations of the Town's representatives indicating that efforts were being made to overcome the problems by the construction of an additional sewage collection system and that any additional requirements imposed by the Commission, that were likely to add to the Town's already heavy expenses, should be deleted from the order because the Town expected that the truck hauling of sewage wastes could be all but eliminated within two to three years, with the advent of the proposed new system.

Following the hearing, the Commission issued a varied order which required the submission of plans for alterations to the sewage disposal system and the discontinuation of the use of the sewage truck pump out site, which had been the subject of residents' complaints. The order made provision that Kernsted Road should not be used for sewage pump out truck traffic beyond November 1, 1986, except during a limited period in May and October of each year. The Town appealed the order and the clauses of the order affecting the pump out site were stayed by the Minister. Final disposition of the appeal remained unresolved at year's end. In the fall of 1984, Council of Winnipeg Beach gave third reading to a bylaw to construct a pressure pipe sewage collection system to serve additional areas of the Town.

Village of Dunnottar New Sewage Lagoon

At the Village of Dunnottar, a somewhat similar situation existed as the Town's winter population of 280 and summer population of 4000 to 5000, with its approximately 500 sewage holding tanks and 500 pit privies, had been serviced by pump out trucks discharging into an excavation which formed part of the waste disposal ground serving the Village and the Rural Municipality of St. Andrews. The Council filed its proposal early in 1984 and proceeded with the construction of a new sewage lagoon system because of its perception of the urgency of replacing the old, highly unsatisfactory system.

Following receipt of a report from the Environmental Management Division, the Commission advertised the operation in July 1984 and immediately received complaints against the lagoon from a considerable number of residents of both the Village and the Rural Municipality of St. Andrews, in whose jurisdiction the lagoon was located. The major objectors were people residing near the lagoon as well as residents along the route of the proposed autumn discharge of treated lagoon effluent via ditches to Lake Winnipeg. A large number of both permanent and summer residents from both the Village of Dunnottar and the Rural Municipality of St. Andrews attended the hearing in Matlock in August of 1984.

While, in their representations, a number of persons were in favour of the Council's action in installing a proper lagoon to take the place of the former inadequate and environmentally unsatisfactory facility, there were a considerable number of objections to the installation of the lagoon in the location selected and to the discharge of effluent to the lake by open ditches along the two proposed alternative routes. Another objection was a concern for the pollution of the groundwater aquifer by the lagoon.

The Commission's order, issued following the hearing, in addition to prescribing stringent limits on effluent quality, ordered the Village to restrict the discharge to a series of highway ditches and Tougela Creek and thereafter to Lake Winnipeg and to restrict the discharge of effluent to a specified six week period in the fall designed to ensure no discharge of effluent would take place during the season when the Lake Winnipeg beaches were being used for bathing. The order was the subject of an appeal filed with the Minister by local residents concerned about both the effluent discharge route and the possibility of groundwater contamination. The Village also filed an appeal because it questioned the extent of some of the testing and monitoring requirements stipulated in the order.

City of Brandon Sewage Treatment Facilities

Following a hearing in 1982, an order was issued to the City of Brandon prescribing limits, terms and conditions with respect to discharge of sewage effluent to the Assiniboine River. One of the clauses dealt with a condition that required a study of the river be undertaken by the City in co-operation with provincial agencies to determine the concentration of unionized ammonia and chlorine that could be discharged to the river without detriment to aquatic life. After determining that little assistance would be available from provincial government agencies for such a study, the City requested the Commission to vary the order to remove this requirement.

A hearing was held in April 1983 at which time the applicant requested additional time for the preparation of responses to representations received from the Environmental Management Division at the hearing. Further hearings were held in April and August 1984.

The Commission issued a varied order in September 1984 with specific limits for biochemical oxygen demand, nonfilterable residue, coliforms, as well as unionized ammonia and chlorine. Limiting ammonia in municipal water pollution control effluents in Manitoba would be a new practice. This was recommended for Brandon by the Environmental Management Division. Appropriate levels of chlorine and ammonia in sewage effluent discharged to the river were discussed at length during the hearing along with critical low river flows relating to these limits. The City did not disagree with the principal of limiting ammonia discharges but continued to challenge the final levels proposed by the Environmental Management Division and adopted by the Commission. The City appealed the order and, at year end, a decision had not been made on the appeal.

Village of Glenboro Sewage Lagoon Expansion

Three other operations of considerable interest were also dealt with in 1984. These included an expansion of the sewage lagoon system serving the Village of Glenboro where an infiltration sewage lagoon cell had been constructed foregoing the need to discharge effluent from the sewage lagoon system as waste water disappeared by seepage through the bottom of the lagoon cell. The Commission's order issued in connection with this operation required the Village to undertake a hydrogeological study involving the installation of a monitoring well system to ensure that any possible contamination of underground aquifers would be detected early. In the event of such detection, the order requires discontinuation of the use of the lagoon system as it now exists.

Town of Gladstone Sewage Lagoon Expansion

A lagoon expansion in the Town of Gladstone gave rise to objections by a number of residents living along the Whitemud River. Following receipt of a large number of complaints from residents living adjacent to the River, the Environmental Management Division requested a delay in proceedings to enable them to further investigate the residents' complaints about the importance of the river to people using this source as a water supply. The adjourned hearing was expected to be reconvened early in 1985.

Ukrainian Folk Arts Centre & Museum Inc. New Sewage Lagoon Dauphin

Another lagoon proposal which proved controversial was filed by the Ukrainian Folk Arts Centre & Museum Inc. for a lagoon serving its Selo Ukrainia festival site eight miles south of Dauphin. The proposal involved the discharge of effluent from the sewage lagoon system to Edwards Creek. A considerable number of residents, who used infiltration wells recharged from Edwards Creek, enunciated their concerns. Also, a number of cottagers from Dauphin Lake attended the hearing and objected to the proposal by the applicant to discharge effluent to the Creek which flows into Lake Dauphin near Oaka Beach. The Commission issued an order prescribing limits on the quality of the effluent to be discharged from the lagoon and specifying a once a year only discharge in early May during spring snow melt runoff in the Creek. This spring freshet was expected to provide both extensive dilution and rapid flushing of the lagoon effluent discharge. Residents adjacent to the Creek were to be advised in advance of the date of discharge and the discharge interval.

Other Sewage Systems

The Commission dealt with several other sewage treatment operations throughout 1984. These included municipal lagoons to be installed at the Villages of Letellier, Mitchell, and Rosenfeld and at the Spruce Sands Trailer Park in the Rural Municipality of Gimli near Arnes. Also dealt with were variations to orders previously issued by the Commission covering sewage facilities serving Hamiota, and Warren.

INSECTICIDE USE

Control Procedures

Throughout the years since The Clean Environment Act came into force, The Clean Environment Commission has been the principal licencing agency for insecticide programs to be carried out in recreational or residential areas by municipal and provincial government authorities. This was modified to some extent in 1976 when, by virtue of an amendment to The Clean Environment Act municipalities were permitted to carry out such programs, providing they did not affect the environment beyond the municipality, without reference to the Commission by filing an environmental impact statement with the Environmental Management Division. The City of Winnipeg was the only municipal authority which utilized this amendment and applications continued to be referred to the

Commission for all insecticide programs being carried out by the other municipal governments in Manitoba. This licencing procedure resulted in a large number of orders being issued for one, two or more years' duration permitting the insecticide programs to be carried out under specified terms and conditions. While a considerable number of these licencing arrangements expired from year to year, 147 orders remained in existence at the end of 1984.

New Pesticide Regulation

During 1983, the minister responsible for the administration of The Clean Environment Act announced the government's intention to implement a new system of control for pesticide programs by means of a regulation under The Clean Environment Act requiring users to submit applications and receive permits from the department annually. A first draft of this regulation was circulated in May of 1984 for the comments of municipalities, applicators and other interested persons. After receipt of these recommendations for change, a second draft was circulated by the department in November with a request that any further comments or suggestions be forwarded for possible inclusion in the final regulation which is expected to be implemented during 1985.

Fogging For Adult Mosquitoes

In 1984, insecticide programs accounted for a substantial number of orders issued by the Commission. The Commission has, throughout most of the years of its responsibility for insecticide programs, questioned the effectiveness, cost efficiency and environmental impact of thermal fogging or ultra low volume spraying of insecticides against adult mosquitoes. Also questioned was the practice of such control measures in residential areas. The Commission's position in this matter was based on evidence received at a number of hearings including some in the City of Winnipeg. At these hearings evidence was presented that adult mosquito fogging provided only temporary relief while at the same time exposing the resident population to the insecticides. There were few applications received in 1984 for the use of insecticides against adult mosquitoes. Of the five programs proposed, two were in isolated areas where special problems are frequently encountered from biting flies. The first of these was the Mallard Community, near Waterhen, Manitoba, where permission was granted for a fogging program. The other fogging application was received from Manitoba Hydro on behalf of the residents of the isolated community of Sundance entirely surrounded by forest near the Limestone Dam construction site in northern Manitoba. While an order was issued authorizing the use of fogging, the residents of Sundance experienced a dry, hot summer which reduced the insect population and made fogging unnecessary.

The other fogging applications were of a much more specialized nature. The Commission issued an order authorizing fogging for three days at Birds Hill Provincial Park in preparation for the large crowds expected at the Winnipeg Folk Festival. This was required to be done when the public was not present.

City of Brandon Mosquito Control Program

Also, in considering a variation of the order issued for the mosquito control program for the City of Brandon, the Commission again approved the City's continuing comprehensive larvicide program. This involved the treatment of the standing water at mosquito breeding sites in the vicinity of the City carried out under the supervision of a committee whose expertise was provided by members of the Zoology Department of the University of Brandon. In connection with this order, the Commission also authorized the use of fogging for special events scheduled to take place at recreational and park locations throughout the City but only at times when members of the public were not present.

City of Thompson Mosquito Control Program

An application was also received from the City of Thompson that involved a proposal for a continued larviciding as well as an adult fogging operation. After advertising and receiving a considerable public reaction, the Commission held a hearing in Thompson. The City proposed the continuation of the larvicide program and also the use of fogging in the City's residential areas to overcome the reportedly severe problems experienced most summers from excessive numbers of mosquitoes and black flies. Those present at the hearing made no objection to the continuation of the larvicide program, but there was strong objection to the use of insecticides in the residential areas of the City.

Following the hearing, the Commission issued an order which renewed approval of the City's larvicide program, and restricted fogging operations to the Thompson Golf Course and, as in the case of Brandon, to occasional use in recreational areas of the City in preparation for special events, provided that the fogging is carried out when members of the public are not present in those locations.

Rural Municipality of Cameron Black Fly Control Program

Another insecticide order of interest was one applied for by the Rural Municipality of Cameron where the Council wished to control blackfly larvae in the waters of the Souris River. After receiving objections to the proposal, the Commission held a well-attended public hearing at Hartney where a majority of those present strongly favoured a larviciding program to overcome the blackfly nuisance which had, in previous years, afflicted many livestock and game animals in the area as well as the human population. The Commission was advised, during the hearing, that the larvicide proposed for use was registered for the purpose intended and that the prescribed concentration would be sufficient to control blackfly larvae present in the river while not posing a hazard to human health or to many of the other waterborne biota.

In view of the care required to determine when, if, and how treatment should occur, the Commission issued an order which required the municipality to engage the services of a professional biologist to plan and supervise the program in such a manner as to ensure that insecticide is used only at the specific critical period when excessive numbers of blackfly larvae of species which were harmful to humans and livestock were present in the River. This order, as with a number of the Commission's other insecticide orders, requires the Rural Municipality to submit an annual report giving a detailed description of the methodology and effectiveness of the program with a further requirement that plans for each year's program be submitted in advance to enable the Environmental Management Division to monitor the larvicide program on-site.

Other Municipal Insecticide Programs

Departmental invitations offering help to municipalities in setting up comprehensive mosquito control programs stimulated a number of municipalities to make application to commence a mosquito control program primarily by mapping of potential mosquito breeding grounds and their subsequent treatment with larvicides. As a result, orders were issued by the Commission authorizing mosquito larvicide programs for the Town of Minnedosa, the Rural Municipalities of Montcalm, North Norfolk and South Norfolk, the Towns of Deloraine and Winnipeg Beach, the Villages of Dunnottar and Lac du Bonnet, and the Gilbert Plains Country Club. The Commission was pleased that a number of municipalities had applied to use the registered bacterial insecticides involving the bacillus thuringiensis israelensis, which have been proven to be effective against mosquito larvae and which involve less environmental risk than chemical larvicides, although the cost is greater.

Insecticides to Protect Trees

Other types of insecticide orders dealt with by the Commission included four for the Towns of Deloraine, Gladstone, Killarney and Souris for the control of elm bark beetles. Two other orders were issued for tree protection, one to the Government Services Department of the Manitoba Government for spraying at the Legislative Building grounds and the other to the Parks Branch for the selective spraying of spruce and balsam fir trees but only those trees located within campsites at the Whiteshell, Nopiming and Hecla Provincial Parks.

INVESTIGATIONS CONDUCTED

The Clean Environment Commission has as one of its principal responsibilities the conducting of investigations of environmental matters. Three such investigations were carried out during 1984.

Hazardous Waste Control

The Commission made reference to the first of these investigations in its 1983 Annual Report. This investigation followed an announcement by the minister responsible for the environment during that year which heralded the beginning of a three phase program to control hazardous wastes in Manitoba. The announcement of this program included a public symposium on hazardous and special wastes held in Winnipeg in March 1983 to address the dimensions of the problem generally and to stimulate public awareness and participation.

The Commission's involvement in the first phase commenced when the Commission began an eight hearing series in Dauphin and Flin Flon in early December 1983. Five additional hearings were held at the beginning of 1984 in four locations including Brandon, Morden, Portage la Prairie and Thompson, with two hearings taking place in Winnipeg. Efforts were made by advertising, mailings, and direct contact with interested agencies to ensure the hearings were adequately publicized to encourage participation. While attendance at most of the hearings was smaller than expected, the Commission found that the audiences contained a fairly wide representation from municipal councils with waste management problems. Submissions were also received from representatives of large and small industries who were encountering difficulties because no all-embracing system had as yet been adopted by Manitoba for the handling and disposal of toxic and hazardous wastes.

The purpose of this first round of public hearings was largely informational in that it was designed to provide information on hazardous waste problems as encountered in other jurisdictions and the current courses and methods being used for the safe and effective containment, destruction or disposal of hazardous wastes. The hearings were designed to discuss and receive comments on the components required for a successful management system, how the system should be operated, managed, funded and enforced, and the roles that should be played by the private and public sectors in a system that might eventually be adopted in Manitoba.

The advantages of the recycling and reuse of hazardous wastes were emphasized throughout. Stress was also placed on the role that the public could be expected to play in the development of the hazardous waste management program and in a consultative or advisory capacity in the location and management of such facilities as may be installed eventually. Following the completion of this round of hearings and after receiving a considerable number of representations the Commission submitted its report and recommendations to the Minister.

Domtar Inc. Former Wood Preserving Plant Site Winnipeg

The second investigation of 1984 was carried out at the Minister's request in connection with the site of the former wood preserving plant operated by Domtar Inc. in the Transcona area of Winnipeg. Environmental concerns associated with this operation arose from the contamination of the former plant site by preservatives used for the treatment of railway ties and other wood products during the period from 1911 to 1976 when the operation was discontinued. The contamination was a matter of concern because of the nature of the chemicals involved. Investigations carried out on behalf of Domtar had resulted in partial rehabilitation being completed prior to the Commission's investigation. In the intervening years since the plant closed, a rehabilitation plan had been prepared by Domtar and their consultant, in consultation with the City of Winnipeg and the Environmental Management Division of the Manitoba Government. This rehabilitation plan had been approved by the Environmental Management Division in 1978 and again in 1981. The Minister's request to the Commission had followed renewed studies and updating of the consultant's report on rehabilitation.

The report recommended the assembly of the contaminated wood chips and soil at a central location on the site and the capping of these materials with a layer of impervious clay in perpetuity in such a manner as to prevent surface contact with the substances or leaching into groundwater or into the adjacent soil. The burial area was to be protected against future use for any purposes except parks or recreation by the filing of caveats against the land associated with the clay capping. The matter was complicated by the fact that, although the site had not as yet been used for any development, the land had been sold and resold since Domtar had closed down its operation.

The Commission's hearing in Winnipeg in May 1984 was attended by representatives of the development companies involved, representatives of Domtar and of the consultants who had a part in the preparation of the report, and by representatives of the City of Winnipeg and the Province of Manitoba. Detailed representations were made describing the actions, testing, and studies undertaken by those involved in the rehabilitation planning as well as details of the rehabilitation plan, which was proposed to be carried through to completion in conjunction with future residential development at the site so that the material for the clay cap could be obtained from the excavation of a storm water retention pond, required for the subdivision. Notwithstanding the Commission's efforts in mailing letters to residents living near the former Domtar plant site, in advertising the hearing, and in making available copies of the consultant's report for study by members of the public, only a small number of residents of the Transcona area were present at the hearing.

The Commission submitted its report including recommendations to the Minister at year end. In the report, the Commission favoured adoption of the rehabilitation steps outlined in the consultant's report but recommended against delaying implementation until the time of development of the site. The Commission recommended considerable additional testing. The Commission also recommended immediate and effective improvements to site security to ensure that members of the public were not permitted access to any of the areas that might contain potentially harmful materials.

Surface Water Quality Management

A third investigation undertaken by the Commission in 1984 was a review of a program of surface water quality management that had been commenced by the Commission, in co-operation with the environmental department in 1976-77. The 1984 investigation followed the production of two publications by the Environmental Management Division, *Surface Water Quality Objectives and Watershed Classification*, updating the original water quality objectives and watershed classification book. Copies of the Division's proposal received wide distribution in Manitoba and were also sent to a number of agencies outside of Manitoba.

The two-day public hearing which was held in Winnipeg in November 1984 received briefs and representations from a considerable number of municipal, professional and academic authorities in the field of water quality management. While there was a general endorsement of the program and principals of surface water quality management presented by the Environmental Management Division, there were a number of concerns and disagreements expressed with regard to specific water quality objectives and management concepts, such as the delineation of a "mixing zone" and the application of water quality objectives to intermittent streams and man-made drainage channels. A number of recommendations were made for the revision of segments of the document.

Following the hearing, the Environmental Management Division undertook to review the details of its recommendations to establish what revisions would be included in the final recommendation documents. A number of additional submissions and comments were received following the hearing. The Commission will make its report and recommendations to the Minister in 1985 following review and consideration of this material.

ORDERS ISSUED

As a result of its operations during 1984, the Commission issued 54 orders under the provisions of The Clean Environment Act prescribing limits, terms and conditions on the release, discharge or deposit of contaminants to the environment. Details of these orders are given in Appendix "B". The operations for which orders were issued in 1984 can be classified as follows:

1. Medium Industry	3
2. Light Industry	2
3. Grain and Feed Mills	2
4. Mining and Smelting	4
5. Pest and Weed Control	22
6. Sewage Treatment	12
7. Utilities	2
8. Pulp and Paper Mills	1
9. Chemical Plants	1
10. Food Industry	5
TOTAL	54

Of the orders listed above, 26 (48%) deal principally with the control of contamination of the air while 28 (52%) were issued mainly for problems of water pollution control.

The operations covered in these orders can be grouped in three general categories with twelve affecting sewage facilities, twenty dealing with manufacturing and processing operations, and twenty-two covering pesticide use. Forty-five of the orders were issued to prescribe limits on emissions to the environment concerning applications and proposals filed under the Act. A further eight covered variations approved by the Commission to orders issued previously and one order was issued on the Minister's direction, with the approval of an Order-in-Council to deal with an appeal from an order as filed with his office.

AMENDMENTS TO THE CLEAN ENVIRONMENT ACT

The Clean Environment Act, being Chapter C130 of the Revised Statutes of Manitoba, passed in 1968, was substantially revised in 1972. Amendments were passed in 1974, 1976, 1978, and in 1980. Additional amendments were assented to in September, 1984. The major impact of these latest amendments is as follows.

1. References to "environmental accidents" and "hazardous materials" and clauses referring to the reporting and controlling of these matters were deleted from the Act as the regulation and control of these was covered by the Hazardous Goods Handling and Transportation Act, also passed in 1984.

2. Penalty liability on summary conviction for contravention or violation of any provision of the The Clean Environment Act or Regulation was raised:

   (a) in the case of an individual, from a maximum of five hundred to five thousand dollars per day; and

   (b) in the case of a corporation, from five thousand to fifty thousand dollars per day.

3. Formerly, the Act provided that the Commission could vary an order that had not been appealed but it was required to first hold a hearing for that purpose, regardless of any expression of public interest in the matter. The Act, as now amended, allows the Commission to vary such an order without a hearing; however, it must first give public notice of its intention to do so and, if an objection is received within 15 days of such notice, must hold a hearing before varying the order.

4. Added provision was made for the Minister to take action to prevent, reduce, or minimize situations where there may be a threat or danger to the health or well-being of the people of Manitoba.

5. The following were added to the list of specific regulations authorized in the Act:

   (a) respecting the methods of testing samples and prescribing the equipment or apparatus or structures to be used for taking samples;

   (b) prohibiting littering and controlling and regulating the disposal of litter;

   (c) requiring a permit for the use or institution of certain pesticides or pesticide control programs.

6. The Act formerly provided that a municipality might undertake an operation resulting in the discharge of a contaminant to the environment, without registration of the operation under the Act or the regulations, for an order of the Commission provided the effects on the environment resulting from the operation were confined to the municipality, and the municipality filed a statement describing the operation and an environmental impact statement with the department prior to the commencement of the operation.

   This provision was repealed so that all such undertakings must be registered and dealt with in the normal manner; i.e. registration either for an order of the Commission or in compliance with a regulation under The Clean Environment Act.

7. Provision was made that the Minister may make regulations declaring or designating certain areas in the Province as sensitive or critical areas and prescribing standards or controls respecting environmental matters in these areas.

* * * * *

The Dangerous Goods Handling and Transportation Act was passed June 29, 1984, and proclaimed, in part, on August 20, 1984. The balance of this Act was expected to be proclaimed as complementary regulations are developed. This Act provides comprehensive "cradle to grave" regulation and control of dangerous material, including accidents involving same. A single-window approach was utilized so that transportation of dangerous goods, as well as their manufacture, importation, use, handling, and disposal were all incorporated into this one piece of legislation. A separate Act covering transportation of dangerous goods had previously been passed, but not proclaimed, and this was repealed on passage of the new Act.

Before the final drafting of this new Act, public information meetings were held during 1983 at a number of locations throughout Manitoba, at which time the initial draft legislation was presented and discussed by staff of the department. These meetings provided the opportunity for explanation to, and comment from, the general public, municipal councils, industry, and special interest groups. Additional meetings were held in 1984 and submissions from parties continued to be received and considered prior to tabling of the final draft of the Bill in the Legislature.

STATE OF THE ENVIRONMENT

Manitoba continues to enjoy a relatively clean environment, in comparison with other more industrialized areas of the world. In addition to environmental vigilance on the part of citizens, government and industry, a basic reason for this is the low population density and the lack of heavy industry, apart from the Winnipeg area and other centres of industry and population. This should not lessen the concern about sources of pollution within Manitoba as well as the pollution originating from outside this Province that adversely affects our environment.

Pervasive problems, such as acid rain, continue to impact on many areas of the world in a devastating manner and evidence of the damage inflicted on the environment grows daily. While Manitoba has not yet been seriously affected, we cannot ignore the fact that two large sources of sulphur dioxide emission exist in Manitoba and must contribute to the overall problem of acid rain.

The so-called "greenhouse effect" of the measured accumulation of carbon dioxide in the earth's atmosphere is a theory that is gaining in both acceptance and concern. Over an extended period of time, this accumulation could result in a general warming of the climate, which would produce significant, worldwide alteration of the environment. Many of the predicted changes would not be beneficial and could be catastrophic to some areas. Much discussion and scientific activity is now being directed to the exploration of this phenomenon. This increase and accumulation of carbon dioxide is thought to be due largely to the burning of fossil fuels and the destruction of forests.

Locally, the disruptive effects of the Churchill River Diversion on the affected waters, lands and population continue to be experienced and will be for some time until a new state of environmental equilibrium evolves in the affected areas. Additional energy supplies are necessary if there is to be sustained growth and development in this Province and, on balance, from an environmental point of view, hydroelectric power may be one of the best methods of providing additional energy. Nevertheless, there is an environmental price to pay in the disruption of an ecosystem and this aspect of such developments warrants thorough study and careful consideration in arriving at decisions for power development.

Unresolved problems, such as acid rain, the greenhouse effect of carbon dioxide, potential pollution resulting from the Garrison diversion project, and the protection of the Shoal Lake source of Winnipeg's water supply are a reminder that Manitoba is part of a larger ecosystem and that sources of pollution outside Manitoba's boundaries can and do impact our environment. These same problems also make us aware that the pollutants that we produce, in addition to impacting our own environment, may cause damage to our neighbours' environment.

SCOPE

Section 11(1)(d) of The Clean Environment Act requires that the Commission shall prepare and submit to the Minister an annual report not only related to matters dealt with by the Commission, but also including a review of the state of the environment.

A comprehensive report on the state of the environment would be very desirable; however, in order to produce such a report, the establishment of a base line position with respect to analytical data on air, water, and land would be necessary. Beyond that, there would be a requirement to maintain current analytical data on all aspects of the environment to enable the establishment of air, water, and land quality trends, as well as predictions for the future. The undertaking of such a major program would require a large investment of funds and staff and is beyond the present resources of the Commission.

In the absence of such a program, the Commission has confined its comments to aspects of the environment that have come to its attention during the course of its work throughout the year and that both relate to the environment in Manitoba and have consequences for Manitobans. The Commission has been directly involved in some of the matters discussed, while others have come to the Commission's attention through media reports or technical literature.

EFFECTS OF FINANCIAL RESTRAINTS

Late in the year, because of an effort to reduce the magnitude of the budget deficit, the new federal government announced a number of program eliminations and cutbacks, including some environmental programs. One cutback that caused the Commission much concern was the elimination of the Environmental Secretariat of the National Research Council. Over the years, this organization has done a large number of valuable studies on environmental matters and has been the focus of the unbiased collection of reputable scientific information on the environment for high level peer review, resulting in the preparation of reports containing risk analyses and assessments and, frequently, recommendations for further study or action. The Clean Environment Commission has utilized a number of these reports, particularly with regard

to chemical pesticides, and believes that the loss of the Environmental Secretariat is a serious loss of expertise, even though the federal government has said that at least some of the matters under study by the Secretariat will be picked up by evaluation units within departments or other regulatory agencies and that the National Research Council Associate Committee on Scientific Criteria for Environmental Quality, which the Secretariat served, will continue to operate. Other environmental program cutbacks are reported to involve reductions of programs within the Environment Department, including a substantial curtailment of the funds allocated to the Canadian Wildlife Service.

Closer to home, also for reasons of financial restraint and to provide for reallocation of resources to higher priority environmental programs, the provincial environment department suspended a substantial part of its surface water quality monitoring program and the further classification of drainage basins for the application of water quality objectives.

During tough economic times, environmental programs are among the first to suffer in favour of industrial and other developmental thrusts. This is understandable in view of current unemployment levels and general economic difficulty; however, any serious cutback in environmental standards or vigilance may be short-term economic gain for long-term environmental and economic loss and it is earnestly hoped that these curtailments, both federal and provincial, are only temporary and will be restored in the near future. In the meantime, the Commission feels a serious sense of loss resulting from these program reductions.

On a positive note, the Manitoba Waste Exchange opened for business in December. Operated by the Biomass Energy Institute Inc. and funded by both the provincial and federal governments, the exchange will actively promote and facilitate the recycling of industrial waste for productive purposes in other industries. This should help to reduce this province's waste disposal problems, including hazardous wastes. An example of the utilization of a waste product by industry, already taking place in Manitoba, is the recent substitution of flax straw as part of the fuel in a cement manufacturing plant in Winnipeg.

AIR

During the year, there continued to be a number of incidents involving the spilling of ammonia due to accidents, which occurred during the transportation of liquified gaseous ammonia fertilizer by road in pressurized tank trailers. These accidents were all dealt with appropriately without reported problems to human health; however, there is a risk involved in such accidents, as anhydrous ammonia can be hazardous to human health if encountered in heavy concentrations (over 1000 parts per million). Municipal officials, especially in the City of Brandon, where ammonia fertilizer is manufactured at the Simplot Chemical Company Ltd., have expressed concern about the transportation of this product in close proximity to residential areas and the need for alternative transportation routes to bypass such areas.

The use of insecticides for control of nuisance mosquitoes continued to be a controversial matter, particularly in Winnipeg, where a program of spraying to control adult mosquitoes was carried out to counteract a large scale infestation resulting from heavy summer rainfall. Fortunately, the results of the monitoring of indicators for a possible outbreak of western equine encephalitis, which is transmitted by mosquitoes, were such that an emergency mosquito control program to control this disease was not considered to be necessary. Following up recommendations of the Commission in its 1982 Report on Mosquito Control Programs in Manitoba, draft regulations for a permit system for mosquito control programs were circulated by staff of the environment department for public discussion and comment prior to the implementation of such regulations, which may take place before the onset of the 1985 mosquito season.

In October, The Canadian Broadcasting Corporation aired a television program which revealed that the federal Department of Health had undertaken a survey of radon gas in a number of homes in several Canadian cities in 1978, 1979 and 1980. This survey, combined with the CBC's own survey of 50 homes in Winnipeg in 1984, indicated that Winnipeg may have the highest level of radon contamination in homes of any Canadian city. Radon gas is a product of naturally occurring radioactive material in some soils and building materials and is linked to lung cancer. However, both the federal and provincial health authorities issued assurances that levels detected do not constitute a health hazard and that costly remedial action by homeowners was not warranted, based on knowledge of the problem to date, including epidemiological studies which demonstrate that Winnipeg does not have an abnormally high incidence of lung cancer. The province will continue to monitor the situation.

Canada's air continues to be polluted by automobile emissions beyond the degree which would occur if automobile emission control standards, already in place in the U.S.A., were adopted for Canadian cars. The oxides of nitrogen, which could be substantially reduced by higher standards of emission control equipment, are a factor in the production of acid rain.

The federal government has set a limit of 0.29 grams of lead content, as an average, for each litre of gasoline manufactured. However, because of the refinery capital investment required, the new limit is not to be applied until January 1, 1987. In the meantime, regular leaded gasoline continues to be sold at a substantial price reduction at the retail level, which encourages its use. It is known that this price incentive has resulted in the removal or alteration or damage of pollution control equipment on some vehicles, by persons wishing to use leaded gasoline in vehicles originally made for nonleaded fuel. Tax measures to effect retail price equalization should be considered by the province to remove this incentive. Penalties for vehicle modification should also be enforced.

The burning of straw and peat by farmers continued to be a controversial question, particularly in the farming areas of eastern Manitoba where peat is prevalent. There are contentions of both advantages and disadvantages resulting from this practice, from an agricultural point of view, but from an environmental standpoint this practice can only be seen as detrimental, in terms of moisture and soil conservation and destruction of wildlife, in addition to the highway traffic hazard and personal discomfort caused on occasion by excessive smoke. The only conclusive action announced by government was an undertaking by the Department of Natural Resources, to extend the designated "wooded district" under regulations to all the area east of Highway 59, and, acting under the Fires Prevention Act, to extinguish fires creating a public hazard, if landowners do not do so themselves.

Evidence of the seriousness of the worldwide problem of acid rain continues to grow, along with public concern and determination to undertake remedial programs. The Parliamentary Subcommittee on Acid Rain presented its final report which made a wide range of recommendations urging action on a number of fronts, including methods of financing reduction programs, such as tax relief and government grants. There was a Federal-Provincial determination to adopt an agreement for Canadian reduction targets, while continuing to negotiate with the government of the U.S.A. for an international strategy to address this problem. Unilateral Canadian action alone is not sufficient, as over half of the contaminants, producing acid rain in regions of Canada, originate south of the border. Many scientific experts on both sides of the border agree that additional research is needed to fully understand the problem, its causes, its effects, its costs, and its most logical solutions; however, the Canadian position is that the commencement of meaningful steps to combat this problem should not await the final outcome of such research. The problem is too urgent and the results of delay could be too severe.

Also, during the year, the federal Department of Energy, Mines and Resources issued a Special Report on Canada's Nonferrous Metals Industry, which is a large contributor of acid rain causing sulphur dioxide. This report analyzed the present and future market probabilities for this industry, the competitive position of Canadian companies within this market, and the costs and economic effect of the implementation of measures to contain sulphur dioxide emissions. Detailed studies of individual nonferrous metal operations are in progress, including Manitoba operations.

WATER

The year ended with encouraging developments in the consideration of the Garrison Diversion Project in North Dakota, which is of great importance and concern to Manitoba, and which has been a matter of contention for many years. During the year, a United States Congressional Committee was appointed to review the project and to report by the end of 1984 on any alterations or modifications to the project plan that the Committee might recommend.

The Committee's report recommended a substantial reduction in the scope of this irrigation project, including elimination of the Lonetree Reservoir, which was a focal point of concern to Manitoba for the protection of Manitoba waters from possible pollution by transfer of aquatic life from the waters of the Missouri watershed to the Hudson Bay watershed. The report was largely supported and endorsed by the Manitoba Government. However, the Lonetree Reservoir remains an authorized, if not presently contemplated, feature of the project and, because many North Dakota citizens firmly support its construction, the issue cannot yet be considered as finally resolved. Continued vigilance will be necessary.

A federal government Commission was appointed to conduct a national water enquiry. Hearings held across Canada in 1984, received briefs from governments, industries, environmental groups and concerned citizens. This federal Commission will consider the present state of Canada's water supply, the pressures and demands placed upon it, and the requirements for adequate protection of this vital resource. This Commission will report its recommendations for a national water policy that will provide a strategy for future water use and regulation to forestall any possible water crisis. Although Canada is blessed with an overall abundance of fresh water, there are already areas of scarcity resulting from pollution as well as from a deficiency of potential requirement in certain areas of the country. An adequate future water supply for all purposes can no longer be taken for granted.

The Canada-Manitoba Agreement on the Study and Monitoring of Mercury in the Churchill River Diversion continued throughout the year. This is an agreement, which resulted by virtue of arbitration under the terms of the Northern Flood Agreement, to carry out studies in the area affected by the Churchill River Diversion, the principal of which was to improve the knowledge and ability to respond to mercury problems in a northern Manitoba environment. There were six cost shared projects funded by the agreement in 1983/84 dealing with mercury in that ecosystem. A public awareness project is an integral part of the program to ensure that the people within the communities and the public at large are kept informed and that their interests are being addressed. Studies will be concluded by March 31, 1986, and reports completed within six months thereafter.

The Manitoba Naturalist Society mounted a project to continue clean up of the Seine River within the City of Winnipeg. The large amount and great variety of material pulled from the waters and removed from the banks is a revelation of the disregard with which many of our waterways have been treated, being used in the past as a convenient junk disposal site.

Discussion between the Province and the City of Winnipeg continued with regard to plans for improvement of the water quality of the Red River. Litigation by the Town of Selkirk, concerning this problem, is still pending.

Discussions also continued between the governments of Canada, Manitoba, and Winnipeg concerning plans of the Shoal Lake Indian Band No. 40 to develop a cottage lot subdivision near the intake to the City of Winnipeg's water supply. An environmental impact assessment report was prepared and hearings by the federal government on this matter may be held during 1985.

Residents near Lac du Bonnet, whose well water supply had been affected by naturally occurring uranium and radi m, to the extent that the levels of radiation exceeded drinking water guidelines, were assisted by the development of a filter that could be used to remove this contamination. The research and development of the filter was done by the Atomic Energy of Canada Limited, Whiteshell Nuclear Research Establishment at Pinawa.

The experimental use of effluent from the Town of Roblin sewage lagoon to irrigate cropland continued during the year. This operation is being monitored by the Department of Agricultural Engineering at the University of Manitoba, in co-operation with The Manitoba Water Services Board. A final report is expected in 1985. Guidelines will then be developed for the similar use of lagoon effluent in other locations. By this means, effluent may be utilized in a more beneficial way than disposal into streams or other water courses. There seems to be increasing concern over the discharge of lagoons into either natural waterways or ditches; however, for a number of reasons relating mostly to climate, economics and soil type, it is unlikely that irrigation disposal will be a favourable solution to the disposal of lagoon effluent in a majority of situations, so that this possible development should not be looked at as panacea for all such concerns.

The larger centres of population in Manitoba, namely Winnipeg, Brandon, Thompson, and Portage la Prairie, are all producing and discharging to rivers, a sewage effluent that does not meet the standard applied to most of the other communities in Manitoba having central sewage collection and treatment facilities. Winnipeg has recently improved and continues to expand and upgrade its sewage treatment facilities but the problem of high bacteria content in the effluent and the discharge of raw sewage, under conditions of high precipitation, continues.

The City of Brandon is planning to expand and upgrade its sewage treatment plant in general compliance with a recent commission order but has appealed the order in relation to ammonia levels imposed and has requested a study of the impact of discharges on the Assiniboine River — a study that was also requested by the Commission during the course of hearings on the Brandon sewage treatment facilities.

Portage la Prairie is also working on plans to improve its present sewage treatment facilities, in compliance with a recent commission order; however, there are complications with the present deep shaft disposal system, and resulting high biochemical oxygen demand effluent in the Portage lagoon continues to pollute the Assiniboine River as well as to foul the air for traffic on the Trans Canada Highway and nearby residential developments.

The City of Thompson lagoons provide primary treatment to a major part of the City's sewage effluent and secondary treatment to the balance before discharge to the Burntwood River. An order of the Commission, issued in 1975, requiring Thompson to meet higher limits before January 1, 1980, was stayed pending monitoring of the existing waste treatment facilities and the receiving water by the City. The minister responsible has directed that a new hearing to review this matter be held.

It is worthy of note that, in 1972, the City of Winnipeg, in conjunction with the new City of Winnipeg Act and the elimination of the former Metropolitan Corporation of Greater Winnipeg, was by Order-in-Council delegated much of the authority of The Clean Environment Commission over matters con-

cerning the pollution of and the discharge or drainage of sewage or waste into any body of water within the City of Winnipeg area. The former Metropolitan Corporation had similar authority delegated to it in 1960, under the Metropolitan Act. This delegation effectively removes liquid waste discharges within the City of Winnipeg from the authority of The Clean Environment Commission and provides the City of Winnipeg with a unique status within the Province in this regard.

LAND

In 1981, a joint federal-provincial program was undertaken to identify and assess the known or potential health and environmental impact of both former and currently used landfill waste disposal sites. In Manitoba, 760 sites were identified, 530 active and 230 inactive. Twenty-two of these sites were earmarked for further study in 1983-1984. Additional sites were identified for further study during 1984-1985. One of the sites of most concern is at Portage la Prairie where arsenic was detected in nearby wells. A further report on these investigations is expected in the spring of 1985.

The impact of both private and public disposal of wastes in an unsatisfactory manner has been and continues to be one of the world's most serious environmental problems. On this continent, the Great Lakes water system, as well as many other more local water supplies, have been seriously contaminated, not only by direct waste discharges to water bodies but also by leachate from land disposal sites, sometimes to the extent that they can no longer be used as a domestic water supply. Improvements are underway in many cases although the necessary clean up is often a long and costly process.

The leakage of gasoline from an oil storage and distribution plant in Neepawa caused an explosion in a dwelling resulting from gasoline in the soil entering the town sewer system. A number of residents were forced to evacuate their homes for an extended time period. Wells were drilled to collect gasoline and contaminated groundwater, which were removed from the wells by pumping. The attempt to achieve a total and final remedy of this situation will likely be very costly and extend over a long period of time. Once groundwater is contaminated, it is generally very difficult, if not impossible, to completely remove the contamination. This situation is a good illustration of the need to take adequate precautions to protect groundwater from such contamination. In addition to the hazard posed by this particular contamination, i.e. gasoline pollution transported by groundwater, often the groundwater aquifer itself is a very valuable and irreplaceable resource, as a source of water supply for both domestic water and other purposes. Increasing vigilance to protect this increasingly important resource is necessary.

The threat of the elimination of most of southern Manitoba's stately elm trees continues. Sanitation programs, including identification and removal of trees affected by Dutch Elm Disease, are being carried out in a number of communities but recent reports indicate that the spread of the disease has not yet been effectively checked and, indeed, barring the development of a new miracle cure for the disease, it now seems possible that most of Manitoba's elm trees will succumb to the disease in the foreseeable future. It is difficult to contemplate the impact that the total loss of elm trees would have on the environment of many cities, towns and villages in southern Manitoba. It is important that sufficient resources be made available to implement all measures to control the spread of the disease, to the maximum extent possible, and to allow time for replacement of dying elm trees with other species so that entire communities are not denuded of their shade trees.

The Commission's involvement in the Province's program to establish a comprehensive dangerous goods and hazardous wastes, transportation, handling, recycling, treatment and disposal program is dealt with elsewhere in this report. The Commission's report on a first round of hearings in this regard was made to the Minister during the year and a second round of hearings is planned for the fall of 1985 as part of the continuation of this program.

REGULATIONS UNDER THE CLEAN ENVIRONMENT ACT

1973 **February 13, 1973 — Manitoba Regulation 34/73,**
as amended by M.R. 6/76, respecting Livestock Production Operations. Any person operating or intending to operate a livestock production operation is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act. Operators of livestock production operations falling into certain environmental categories as specified by the Regulation must register the operations with the Department.

1974 **June 27, 1974 — Manitoba Regulation 156/74,**
as amended by M.R. 161/75, M.R. 26/78, and M.R. 118/79, respecting Pesticides. Any person intending to apply pesticides is not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act provided the person is an agricultural producer or householder applying the pesticide within confines of property under his control or a herbicide is being applied on behalf of a government department to conform to the requirements of the Noxious Weed Act or the application of pesticides on behalf of a government department in an area not designated residential or recreational.

1974 **December 31, 1974 — Manitoba Regulation 334/74,**
respecting Incinerators. Any person intending to construct or operate a new incinerator is not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act but that person must register the incinerator with the Department.

1975 **June 15, 1975 — Manitoba Regulation 120/75,**
respecting Liquid Effluent Discharges from Pulp and Paper Mills. Any person operating or intending to operate a pulp and paper mill is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to liquid effluent discharges from the mill but that person must meet the requirements of the Federal Fisheries Act.

1975 **August 22, 1975 — Manitoba Regulation 174/75,**
respecting the Treatment of Trees Found to have Dutch Elm Disease, whereby the government departments, Crown corporations or municipal corporations intending to set into operation a program to fulfill the requirements of Manitoba Revised Regulation P90-R2 under The Plant Pests and Diseases Act are not required to file a proposal as provided for in subsection 14(1) of The Clean Environment Act. The Regulation specifies the measures to be taken respecting the treatment and disposal of trees found to have Dutch Elm Disease.

1976 **January 26, 1976 — Manitoba Regulation 18/76,**
respecting the Disposal of Whey. Any person discharging or disposing of whey from a dairy manufacturing plant is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to liquid effluent discharges from the dairy; however, no person is to disposal of whey into the environment other than by an acceptable methods as prescribed by the regulation.

1976 **September 20, 1976 — Manitoba Regulation 208/76,**
respecting Waste Disposal Grounds. Any person operating or intending to operate a waste disposal ground is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act but must register the proposal with the Department and meet the requirements as specified by the Regulation.

1977 **July 13, 1977 — Manitoba Regulation 140/77,**
respecting Discharges to the Air from Secondary Lead Smelters. Any person operating or intending to operate a secondary lead smelter is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act with respect to emissions of particulate matter and lead particulate matter from the smelter. Secondary lead smelters are subject to Regulations under the Federal Clean Air Act.

1977 **July 19, 1977 — Manitoba Regulation 145/77,**
whereby the Minister declared portions of lands in the Local Government District of Fisher as a Critical Area for the purposes of Manitoba Regulation 156/80. A critical area means an area designated by the Minister where groundwater or surface water is contaminated by gasoline or associated products.

1978 **June 26, 1978 — Manitoba Regulation 115/78,**
whereby the Minister declared portions of lands in the Rural Municipality of Victoria as a Critical Area for the purposes of the Storage and Handling of Gasoline and Associated Products Regulation.

1979 **October 17, 1979 — Manitoba Regulation 202/79,**
whereby the Minister declared portions of lands in the Rural Municipality of Ritchot as Residential Areas for the purposes of the Livestock Production Operations Regulation.

1980 **June 27, 1980 — Manitoba Regulation 112/80,**
respecting Campgrounds.

1980 **September 3, 1980 — Manitoba Regulation 156/80,**
respecting the Storage and Handling of Gasoline and Associated Products. Any person operating or intending to operate a storage tank system is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act. In the Regulation, no person shall construct or operate a storage tank system without completing and filing a departmental form. No person shall operate an existing tank system without registering the system. No person shall alter an existing storage tank system without registering the plans with the Department. This regulation repeals Manitoba Regulations 148/76, 42/77, and 246/77.

1980 **September 16, 1980 — Manitoba Regulation 165/80,**
respecting The City of Winnipeg Amy Street Heating Plant located at 21 Amy Street, Winnipeg, Manitoba. This regulation postponed to September 1, 1985, the imposition of the stated air pollution control limits.

1981 **January 7, 1981 — Manitoba Regulation 15/81,**
respecting the designation of certain substances as Hazardous Materials.

1981 **March 27, 1981 — Manitoba Regulation 85/81,**
respecting Private Sewage Disposal Systems and Privies. Any person operating or intending to operate a private sewage disposal system with a sewage flow of less than 14,000 litres of sewage per day is not required to file a proposal or register as provided for in subsections 14(1) and 14(4) of The Clean Environment Act. Private sewage disposal systems must be registered with the Department and meet the requirements of the Regulation. This regulation repeals Manitoba Regulation 242/76.

1984 **May 30, 1984 — Manitoba Regulation 119/84,**
whereby the minister designated portions of the Province as sensitive areas for the purposes of Manitoba Regulation 85/81. A sensitive area means an area designated by the Minister having regard to such criteria as permeability of the soil, groundwater aquifer, soil corrosiveness, bedrock geology and surface water courses.

1984 **May 30, 1984 — Manitoba Regulation 120/84,**
whereby the minister designated portions of the Province as sensitive areas for the purposes of Manitoba Regulation 85/81.

1984 **June 1, 1984 — Manitoba Regulation 124/84,**
respecting Litter.

APPENDIX A
PUBLIC HEARINGS - 1983

Hearing Number	Date	Subject	Location
H-01-84	84/01/11	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Winnipeg
H-02-84	84/01/17	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system. how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Portage la Prairie
H-03-84	83/01/18	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Brandon
H-19-83	84/01/24	Regarding the Manitoba Sugar Company to investigate complaints from a number of persons affected by the said operation and to prescribe limits in connection with the operation of a beet sugar factory located at or near 555 Hervo Street in the City of Winnipeg.	Winnipeg
H-04-84	84/01/25	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Morden
H-05-84	84/01/30	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Winnipeg
H-06-84	84/02/02	Regarding Hazardous and Special Wastes to determine what components are required for a successful management system, how the system should be operated, funded, enforced, and what role recycling should play in special waste management.	Thompson
H-07-84	84/02/06	Regarding Shell Canada Limited to consider a proposal for the alteration of premises to convert the refinery to a product storage and distribution terminal and to continue the disposal of hydrocarbon sludge onto land on the premises located on Lots 1, 2, and 3, Plan 5383 in the Roman Catholic Mission property, at or near 250 Panet Road in the City of Winnipeg.	Winnipeg

Hearing Number	Date	Subject	Location
H-08-84	84/03/20	Regarding the Village of Hamiota to consider the possible variation of Order No. 836VC in connection with the operation of a sewage lagoon system located on Parcels A, B, C, and D, Plan 4819, being part of the SW¼ of Section 8, Township 14, Range 23, WPM, in the Rural Municipality of Hamiota and serving the said Village with discharge of effluent to a drainage channel and into a natural watercourse.	Hamiota
H-09-84	84/03/28	Regarding the Rural Municipality of Woodlands, at the direction of the Minister responsible, following appeal of Order No. 914 issued in connection with the operation of a sewage lagoon system to be located in the SW¼ of Section 29, Township 13, Range 1, West of the Principal Meridian in the said Municipality, serving the unincorporated village of Warren, with discharge of effluent to Sturgeon Provincial Drain and thence to Sturgeon Creek and the Assiniboine River.	Warren
H-10-84	84/04/04	Regarding Manitoba Hydro to consider the application of limits on air emissions from the continued operation of the Brandon Thermal Generating Station complex including a generating plant, an ash lagoon, and coal stockpiles, located in the SW¼ of Section 20, Township 10, Range 18, WPM, in the City of Brandon.	Brandon
H-11-84	83/04/09	Regarding the Village of Glenboro to consider a proposal in connection with the operation of an expanded and upgraded sewage lagoon system located in the NW¼ of Section 10, Township 7, Range 14 WPM in the Village of Glenboro, Manitoba, with percolation of treated waste water into the soil from the secondary cell of the said system.	Glenboro
H-05-83	84/04/10	Regarding the City of Brandon to consider the possible variation of Order No. 965 issued in connection with the operation of sewage treatment facilities with discharge of effluent to the Assiniboine River.	Brandon
H-12-84	84/04/11	Regarding the City of Brandon to consider the possible variation of Order No. 979 issued in connection with a program to control mosquito larvae in the City of Brandon and environs and for the control of adult mosquitoes in designated parks and recreational areas within the City of Brandon.	Brandon
H-13-84	84/04/17	Regarding Orloff Enterprises Limited in connection with the operation of an aluminum recovery plant located at 95 Higgins Avenue in the City of Winnipeg.	Winnipeg

Hearing Number	Date	Subject	Location
H-14-84	84/05/03	Regarding the Department of Government Services to consider a proposal in connection with programs to protect trees and shrubs located on the grounds of the Legislative Building located at 450 Broadway Avenue, Memorial Park located on Memorial Boulevard, the Fort Osborne Complex at 139 Tuxedo Avenue, and the Manitoba School for the Deaf at 500 Shaftesbury Boulevard, all in the City of Winnipeg, by using the insecticide Dursban applied to the trunks of elm trees to control Elm Bark Beetles and the insecticide Methoxychlor applied to the crowns of trees and shrubs to control cankerworms.	Winnipeg
H-15-84	84/05/15	Regarding Maple Leaf Mills Limited in connection with the operation of a grain elevator and feedmill complex located at Block M, Plan 433 RCMP, Parcel B, Plan 6595 and Parcel 2, Plan 4542, at or near 440 Archibald Street in the City of Winnipeg.	Winnipeg
H-16-84	84/05/23	Regarding Domtar Inc. at the request of the minister responsible, to review a plan prepared by consultants to the company for the measures necessary to rehabilitate the site of a former wood preservative plant in Transcona.	Winnipeg
H-17-84	84/05/28	Regarding the Winnipeg Chapter of the Manitoba Muzzle Loaders Association in connection with the operation of a shooting range in the Rural Municipality of Woodlands.	Woodlands
H-18-84	84/06/13	Regarding the Town of Winnipeg Beach to consider a possible variation of Order No. 314 and Order No. 1003 issued in connection with the operation of a sewage lagoon system located in the NE¼ of Section 34, Township 17, Range 4 EPM in the Rural Municipality of St. Andrews with discharge of effluent to Lake Winnipeg.	Winnipeg Beach
H-19-84	84/06/14	Regarding the Rural Municipality of Cameron to consider a proposal for a program to control blackflies by the use of the insecticide Dursban in the Souris River.	Hartney
H-20-84	84/06/15	Regarding the Village of Winnipegosis to consider the possible variation of Order No. 907VC issued in connection with the operation of a sewage lagoon system located in the SE¼ of Section 15, Township 31, Range 18 WPM serving the Village of Winnipegosis.	Winnipegosis
H-21-84	84/07/03	Regarding Department of Natural Resources, Parks Branch, to consider a proposal for the control of adult mosquitoes by the use of Malathion in selected areas of Birds Hill Provincial Park from July 3 to July 7, 1984.	Winnipeg

Hearing Number	Date	Subject	Location
H-05-83	84/08/01	Regarding the City of Brandon to consider the possible variation of Order No. 965 issued in connection with the operation of sewage treatment facilities with discharge of effluent to the Assiniboine River.	Brandon
H-22-84	84/08/02	Regarding the Town of Deloraine to consider a proposal for the control of mosquitoes by applying the larvicide Abate 4-E and the bacterial larvicide Vectobac (Bacillus thuringiensis israelensis) to breeding ponds in the Town and its environs, and by spraying with the insecticide Malathion within the Town using vehicle mounted and backpack equipment during 1984.	Deloraine
H-23-84	84/08/08	Regarding the Village of Dunnottar to consider a proposal for the operation of a sewage lagoon system to be located in the NW¼ of Section 8, Township 17, Range 4 EPM in the Rural Municipality of St. Andrews.	Dunnottar
H-24-84	84/08/09	Regarding the Town of Gladstone to consider a proposal for the continued operation of an enlarged sewage lagoon system located in the SE¼ of Section 29, Township 14, Range 11 WPM in the Rural Municipality of Westbourne, serving the Town of Gladstone, with discharge of effluent via a pipeline to the Whitemud River.	Gladstone
H-25-84	84/08/15	Regarding Hudson Bay Mining and Smelting Co., Limited to consider the possible variation of Order No. 880VC issued for the operation of a mine complex known as Chisel Lake/ Ghost Lake Mine located at Lots 3581, 3582, 3596, 3597, 3731, Group 42, Township 67, Range 18 WPM with discharge of effluent to Tent Lake and through a marsh area to Morgan Lake and thence by way of Woosey Lake and Woosey Creek to Reed Lake.	Snow Lake
H-26-84	84/08/15	Regarding the City of Thompson to consider a proposal to use the chemical larvicides Abate 2G and Pyrethrin Tossit capsules and the bacterial larvicide Vectobac in the vicinity of the City of Thompson by hand or using backpack spray equipment, and to control adult mosquitoes by ultra low volume fogging using the chemical insecticide Baygon within the City during the summer of 1984, and to consider the possible rescinding of Order No. 995 issued previously for the City of Thompson's larviciding program.	Thompson
H-27-84	84/09/11	Regarding Simplot Chemical Company Ltd. to consider a possible variation of Order No. 834VCC issued for the operation of a chemical fertilizer plant located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon with discharge of effluent for the irrigation of cropland and to the Assiniboine River.	Brandon

Hearing Number	Date	Subject	Location
H-28-84	84/10/11	Regarding Manitoba Sugar Company for the continued operation of an existing sugar beet processing plant located on those portions of River Lots 18, 19, 20, 21 and 22 in the Parish of St. Vital shown on Plan No. 3219.	Winnipeg
H-29-84	84/10/15	Regarding Canada Packers Inc. to consider the possible variation of Order No. 237 issued for the operation of a packinghouse and rendering plant located at or near 660 Marion Street in the City of Winnipeg.	Winnipeg
H-30-84	84/10/31	Regarding Ukrainian Folk Arts Centre & Museum Inc. to consider a proposal for the operation of a sewage lagoon system located in the SW¼ of Section 4, Township 24, Range 19 WPM in the Rural Municipality of Dauphin with discharge of treated effluent to Edwards Creek.	Dauphin
H-31-84	84/11/20	Regarding Surface Water Quality Objectives to investigate the public acceptability and the scientific and technical soundness of a proposal to revise the Commission's 1977 "Report on a Proposal Concerning Surface Water Quality Objectives and Stream Classification in the Province of Manitoba".	Winnipeg

APPENDIX B
ORDERS ISSUED IN THE CALENDAR YEAR 1984

1. Orders Resulting From Applications

1.	Order No. 1013 — Issued to Hudson Bay Mining and Smelting Co., Limited in connection with the continued operation of a copper-zinc mining and smelting complex located in the E½ of Section 1, Township 67, Range 30 WPM in the Province of Saskatchewan and in the W½ of Section 6, Township 67, Range 29, near the City of Flin Flon in the Province of Manitoba, with discharge of tailings and liquid effluent into the Flin Flon Lake tailings area and with effluent drainage via Flin Flon Creek to Ross Lake, Ross Creek, and Schist Lake.	February 27
2.	Order No. 1014 — Issued to Hudson Bay Mining and Smelting Co., Limited in connection with the operation of the Spruce Point Mine located on unsurveyed land portions of M.C.'s Reed 18 and 28, now part of E.A.L. 26, Lot 46, Group 371, Township 64, Range 20 WPM at or near the south shore of Reed Lake in Grass River Provincial Park, with the discharge of contaminants to the environment.	March 22
3.	Order No. 1015 — Issued to Bothwell Co-operative Dairy Society Ltd. in connection with the operation of an aerated sewage lagoon system located in the SE¼ of Section 30, Township 7, Range 5 EPM, in the Rural Municipality of Hanover, for the treatment of liquid waste from a plant for manufacturing cheese and whey powder, with discharge of effluent via road ditches to the Manning Canal.	March 30
4.	Order No. 1016 — Issued to Robert D. Hammond in connection with the operation of a sewage lagoon system located in the SW¼ of Section 7, Township 21, Range 4, EPM, in the Rural Municipality of Gimli, serving the Spruce Sands Trailer Park, with discharge of treated effluent to irrigate agricultural land located in the same quarter section.	April 30
5.	Order No. 1017 — Issued to the Rural Municipality of Woodlands in connection with the operation of a sewage lagoon system to be located in the SW¼ of Section 29, Township 13, Range 1, West of the Principal Meridian in the Municipality, serving the unincorporated village of Warren, with discharge of effluent to Sturgeon Provincial Drain and thence to Sturgeon Creek and the Assiniboine River.	April 30
6.	Order 1018 — Issued to the Department of Government Services in connection with programs to protect trees and shrubs located on the grounds of the Legislative Building located at 450 Broadway Avenue, Memorial Park located on Memorial Boulevard, the Fort Osborne Complex at 139 Tuxedo Avenue, and the Manitoba School for the Deaf at 500 Shaftesbury Boulevard, all in the City of Winnipeg, by using the insecticide Dursban applied to the trunks of elm trees to control Elm Bark Beetles and the insecticide Methoxychlor applied to the crowns of trees and shrubs to control cankerworms.	May 14
7.	Order No. 1019 — Issued to Shell Canada Limited in connection with the alteration of premises to convert the refinery to a product storage and distribution terminal and to continue the disposal of hydrocarbon sludge onto land on the premises located on Lots 1, 2, and 3, Plan 5383 in the Roman Catholic Mission property, at or near 250 Panet Road in the City of Winnipeg.	May 29
8.	Order No. 1020 — Issued to Shadow Gate Meats Ltd. in connection with the operation of an abattoir with a waste water lagoon located in the SE¼ of Section 11, Township 13, Range 7, WPM, in the Rural Municipality of Brokenhead.	May 29

9.	Order No. 1021 — Issued to Mandak Metal Processors Ltd. in connection with the operation of a scrap metal recovery and processing plant located on River Lots 21, 22, 23, 24, and 25 in the Parish of St. Clements.	June 1
10.	Order No. 1022 — Issued to Frontier School Division No. 48 in connection with the operation of a sewage lagoon system located on part of Lot No. 898, Group 421 at Sherridon, serving the Cold Lake School and teachers' residences, with discharge of effluent to Camp Lake.	June 1
11.	Order No. 1023 — Issued to the Village of Glenboro in connection with the operation of an expanded and upgraded sewage lagoon system located in the NW¼ of Section 10, Township 7, Range 14 WPM in the Village of Glenboro, with percolation of treated waste water into the soil from the secondary cell of the said system.	June 13
12.	Order No. 1024 — Issued to Maple Leaf Mills Limited in connection with the operation of a grain elevator and feedmill complex located at Block M, Plan 433 RCMP, Parcel B, Plan 6595 and Parcel 2, Plan 4542, at or near 440 Archibald Street in the City of Winnipeg.	June 21
13.	Order No. 1025 — Issued to Manitoba Hydro in connection with a program to control mosquitoes, blackflies and other biting flies at the Limestone construction camp in Section 1, Township 87, Range 21 EPM and Sundance townsite in Section 8, Township 87, Range 22, EPM in unorganized territory in Manitoba.	June 22
14.	Order No. 1026 — Issued to the Rosenfeld Sanitation Co-op Ltd. in connection with the operation of a sewage lagoon system located in the SW¼ of Section 8, Township 3, Range 1 WPM in the Rural Municipality of Rhineland, serving the unincorporated village of Rosenfeld with discharge of effluent via a drainage ditch into the Plum River.	June 22
15.	Order No. 1027 — Issued to the Letellier Sanitation Co-op Inc. in connection with the operation of a sewage lagoon system located in the West end of River Lot No. 133 in the Parish of Ste. Agathe, in the Rural Municipality of Montcalm, serving the unincorporated village of Letellier, with discharge of effluent via a ditch to the Red River.	June 22
16.	Order No. 1028 — Issued to Reliance Products Ltd. in connection with the operation of plastic container manufacturing plant located in Lot 5, Block 3, Plan 6206, in Parish Lot 7/31 in the Parish of St. Boniface, Roll No. 2-715180-3, at or near 1535 Seel Avenue in the City of Winnipeg.	June 25
17.	Order No. 1029 — Issued to the Department of Natural Resources in connection with a program for the control of spruce budworm by applying the insecticides Dipel and Thuricide, using vehicle-mounted spray equipment, to white spruce and balsam fir trees located at Opapiskow Campground and Dorothy Lake Trailer Village in Whiteshell Provincial Park, at Tulabi Falls Campground in Nopiming Provincial Park and at selected locations on the Hecla Island Road in Hecla Provincial Park.	June 25
18.	Order No. 1030 — Issued to Omega Hydrocarbons Ltd. in connection with the operation of a liquified petroleum gas recovery plant located in the NW¼ of Section 30, Township 1, Range 25 WPM in the Rural Municipality of Brenda.	June 28
19.	Order No. 1031 — Issued to the Department of Natural Resources in connection with a program for the temporary control of mosquitoes and blackflies by spraying with ground based equipment using the insecticide Malathion in an area of approximately 3 hectares on grounds used for the Winnipeg Folk Festival located in Birds Hill Provincial Park.	July 3

20.	Order No. 1032 — Issued to Simplot Chemical Company, Ltd. in connection with air emissions from the operation of a chemical manufacturing plant complex located in the SW¼ of Section 18, Township 10, Range 18 WPM in the City of Brandon.	July 5
21.	Order No. 1033 — Issued to the Town of Minnedosa in connection with a program for the control of mosquito larvae using the insecticide chlorpyrifos (Dursban) within the Town of Minnedosa.	July 6
22.	Order No. 1034 — Issued to the Rural Municipality of Montcalm in connection with a program for the control of mosquito larvae using the insecticide chlorpyrifos (Dursban) adjacent to population centres within the Rural Municipality of Montcalm.	July 6
23.	Order No. 1035 — Issued to the Rural Municipality of North Norfolk in connection with a program for the control of mosquito larvae using the insecticide chlorpyrifos (Dursban) in the vicinity of population centres within the Rural Municipality of North Norfolk.	July 6
24.	Order No. 1036 — Issued to the Gilbert Plains Country Club in connection with a program for the control of mosquito larvae in the NW¼ of Section 9, Township 25, Range 22, in the Rural Municipality of Gilbert Plains.	July 20
25.	Order No. 1037 — Issued to the Mallard Community Council in connection with a program for the control of mosquitoes by spraying with ground based equipment using the insecticide Malathion in an area of approximately 8 square hectares within the Community of Mallard.	July 20
26.	Order No. 1038 — Issued to the Rural Municipality of Ritchot in connection with a program for to control mosquitoes by applying the larvicide Dursban 4E to confined bodies of water in the vicinity of population centres within the Municipality.	July 27
27.	Order No. 1039 — Issued to Manitoba Hydro for the continued operation of the Brandon Thermal Generating Station complex located in the SW¼ of Section 20, Township 10, Range 18, WPM, in the City of Brandon.	August 22
28.	Order No. 1040 — Issued to the Town of Killarney in connection with a program to control elm bark beetles by applying the insecticide Dursban 4E to the trunks of elm trees within the Town.	September 7
29.	Order No. 1041 — Issued to the Town of Gladstone in connection with a program to control elm bark beetles by applying the insecticide Dursban 4E to the trunks of elm trees within the Town.	September 7
30.	Order No. 1042 — Issued to the Town of Deloraine in connection with a program to control elm bark beetles by applying the insecticide Dursban 4E to the trunks of elm trees within the Town.	September 7
31.	Order No. 1043 — Issued to the Town of Winnipeg Beach in connection with a program to control mosquitoes by applying the larvicide Dursban 4E to confined bodies of water in the vicinity of the Town.	September 10
32.	Order No. 1044 — Issued to the Rural Municipality of South Norfolk in connection with a program to control mosquitoes by applying the larvicide Dursban 4E to confined bodies of water in the Village of Treherne and in the vicinity of population centres within the Municipality.	September 10
33.	Order No. 1045 — Issued to the Village of Dunnottar in connection with a program to control mosquitoes by applying the larvicide Dursban 4E to confined bodies of water in the vicinity of the Village.	September 10

34.	Order No. 1046 — Issued to the Town of Deloraine in connection with a program to control mosquitoes by applying the larvicides Vectobac and Abate 4E using vehicle mounted or backpack equipment, to confined bodies of water and by spraying to control adult mosquitoes using the insecticide Malathion, in the Town and surrounding area.	September 10
35.	Order No. 1047 — Issued to the Village of Lac du Bonnet in connection with a program to control mosquitoes by applying the larvicide Dursban 4E to confined bodies of water within the said Village.	September 10
36.	Order No. 1048 — Issued to Manitoba Hydro for the continued operation of the Selkirk Thermal Generating Station complex, located in parts of River Lots 73 to 80, inclusive, of the Parish of St. Clements, Certificate of Title No.873584, in the Rural Municipality of St. Clements.	September 11
37.	Order No. 1049 — Issued to The Winnipeg Chapter of the Manitoba Muzzle Loaders Association in connection with the operation of a shooting range located in the NW¼ of Section 24, Township 14, Range 3 WPM in the Rural Municipality of Woodlands.	September 11
38.	Order No. 1050 — Issued to the Village of Dunnottar in connection with the operation of a sewage lagoon system located in the NW¼ of Section 8, Township 17, Range 4 EPM, in the Rural Municipality of St. Andrews.	September 18
39.	Order No. 1051 — Issued to Orloff Enterprises Ltd. in connection with the continued operation of an existing plant for the smelting of aluminum by means of a pyrolysis furnace, located at or near 95 Higgins Avenue in the City of Winnipeg.	September 21
40.	Order No. 1052 — Issued to the Town of Souris in connection with a program to control elm bark beetles by applying the insecticide Dursban 4E to the trunks of elm trees within the Town.	October 17
41.	Order No. 1053 — Issued to the Rural Municipality of Hanover in connection with the operation of a sewage lagoon system located in the SW¼ of Section 1, Township 7, Range 5, EPM, in the Municipality, serving the unincorporated village of Mitchell, with discharge of effluent to a drainage ditch on the west side of the same quarter section and thence to the Chortitz Drain.	October 25
42.	Order No. 1054 — Issued to Parkland Feeds Ltd. in connection with the operation of a feed mill located in the NE¼ of Section 2, Township 25, Range 19 WPM on Provincial Trunk Highway No. 20 East in the Town of Dauphin.	October 25
43.	Order No. 1055 — Issued to the City of Thompson in connection with a program for the control of mosquitoes by larviciding with the insecticides Pyrethrum Tosait capsules, Abate 2G, and Vectobac, and by adulticiding with the insecticide Baygon MOS in the City of Thompson and the Local Government District of Mystery Lake.	November 1
44.	Order No. 1056 — Issued to the Rural Municipality of Cameron for a program to control black flies by the injection of the insecticide Abate 4E in the Souris River within the Municipality.	October 31
45.	Order No. 1057 — Issued to the Ukrainian Folk Arts Centre & Museum Inc. for the operation of a sewage lagoon system located in the SW¼ of Section 4, Township 24, Range 19 WPM in the Rural Municipality of Dauphin, with discharge of effluent to Edwards Creek.	December 20

2. Orders Varied

1.	Order No. 836VCC — Issued to the Village of Hamiota in connection with the operation of a sewage lagoon system located on Parcels A, B, C, and D, Plan 4819, being part of the SW¼ of Section 8, Township 14, Range 23, WPM, in the Rural Municipality of Hamiota and serving the Village with discharge of effluent to a drainage channel and into a natural watercourse.	March 26
2.	Order No. 735VC — Issued to the Manitoba Sugar Company in connection with the operation of a beet sugar factory located at or near 555 Hervo Street in the City of Winnipeg.	April 3
3.	Order No. 764VOO — Issued to Abitibi-Price Inc. in connection with the operation of a paper mill with resultant emissions to the air, located at Section 25, Township 18, Range 9 EPM in the unorganized townsite of Pine Falls.	May 18
4.	Order No. 979VC — Issued to the City of Brandon in connection with a program to control mosquito larvae and pupae in the City of Brandon and environs and for the control of adult mosquitoes in designated parks and recreational areas within the City.	June 1
5.	Order No. 314VC — Issued to the Town of Winnipeg Beach in connection with the operation of a sewage lagoon system located in the SE¼ of Section 34, Township 17, Range 4 EPM in the Town of Winnipeg Beach and the NE¼ of Section 27, Township 17, Range 4 EPM in the Rural Municipality of St. Andrews, with discharge of effluent through a low lying swamp to the south of the lagoon system to Lake Winnipeg.	July 4
6.	Order No. 880VC — Issued to Hudson Bay Mining and Smelting Co., Limited in connection with the continued operation of an existing mine complex known as Chisel Lake/Ghost Lake Mine located at lots 3581, 3582, 3596, 3597, 3731, Group 421, Township 67, Range 18, West of the Principal Meridian in Manitoba, with discharge of effluent to Tent Lake and through a marsh area to Morgan Lake and thence by way of Woosey Creek to Reed Lake.	September 17
7.	Order No. 965VC — Issued to the City of Brandon in connection with the operation of a sewage treatment system located in Sections 17, 21 and 22, Township 10, Range 18 WPM in the Province of Manitoba, with discharge of effluent to the Assiniboine River.	September 18
8.	Order No. 237VCC — Issued to Canada Packers Limited in connection with the operation of a beef and hog slaughtering and processing plant including inedible rendering and blood drying, located on 13.3 acres of 310 Block G, Plan 433, Roman Catholic Mission Property, at or near 660 Marion Street, in the City of Winnipeg.	October 29
9.	Order No. 735VCC — Issued to Manitoba Sugar Company in connection with the continued operation of a beet sugar refinery located at 555 Hervo Street in the City of Winnipeg.	October 31